

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference PAT03007WO	FOR FURTHER ACTION see Form PCT/ISA/220 as well as, where applicable, item 5 below.	
International application No. PCT/EP2004/052460	International filing date (day/month/year) 06/10/2004	(Earliest) Priority Date (day/month/year) 06/10/2003
Applicant NOKIA CORPORATION		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 6 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the report

- a. With regard to the language, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ The international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

- b. ☐ With regard to any nucleotide and/or amino acid sequence disclosed in the international application, see Box No. I.

2. ☐ Certain claims were found unsearchable (See Box II).

3. ☐ Unity of invention is lacking (see Box III).

4. With regard to the title,

☒ the text is approved as submitted by the applicant.

☐ the text has been established by this Authority to read as follows:

5. With regard to the abstract,

☒ the text is approved as submitted by the applicant.

☐ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. With regard to the drawings,

- a. the figure of the drawings to be published with the abstract is Figure No. 5

☐ as suggested by the applicant.

☐ as selected by this Authority, because the applicant failed to suggest a figure.

☒ as selected by this Authority, because this figure better characterizes the invention.

- b. ☐ none of the figures is to be published with the abstract.

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 H04B10/08 H04B10/22 H04M1/02

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 H04B H04M

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ, INSPEC

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 4 994 675 A (LEVIN PAUL ET AL) 19 February 1991 (1991-02-19)	1-32
Y	column 3, line 34 - line 36 -----	33-42
Y	US 6 470 132 B1 (NOUSIAINEN JAAKKO ET AL) 22 October 2002 (2002-10-22) cited in the application abstract; figures 2,6 -----	33-42
A	DE 198 09 667 A (BOSCH GMBH ROBERT) 9 September 1999 (1999-09-09) column 4, line 60 - column 5, line 14; figure 1 ----- -/--	1-32

☒ Further documents are listed in the continuation of box C.☒ Patent family members are listed in annex.

* Special categories of cited documents:

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- *&* document member of the same patent family

Date of the actual completion of the international search

7 April 2005

Date of mailing of the international search report

15 APR 2005

Name and mailing address of the ISA

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 2003/087610 A1 (ONO SHUICHI) 8 May 2003 (2003-05-08) paragraphs '0042!, '0043!, '0046!, '0047!; figure 9 -----	33-42
X	US 4 325 146 A (LENNINGTON ET AL) 13 April 1982 (1982-04-13) column 7, line 1 - line 22; figure 3 -----	43,46
X	EP 0 772 307 A (NOKIA MOBILE PHONES LTD) 7 May 1997 (1997-05-07) abstract column 8, line 22 - line 35 figure 2 -----	43-48

INTERNATIONAL SEARCH REPORT

International application No.
PCT/EP2004/052460

Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos.:
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this International application, as follows:

see additional sheet

1. ☒ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-42

An opto-mechanical device for providing a communication link, comprising a first opto-electronic equipment for providing an optical signal, a second opto-electronic equipment for receiving the optical signal, a first optical channel and a second channel, where the first and second opto-electronic equipments are physically connected to each other by a coupling that permits the first opto-electronic equipment to rotate relative to the second opto-electronic equipment about a rotation axis

2. claims: 43-48

A communication link for communicating data between a first opto-electronic equipment for providing an optical signal and a second opto-electronic equipment capable of receiving the optical signal, wherein the communication link comprises a first optical channel and a second channel and the first opto-electronic equipment determines activation of at least a part of a receiver circuit associated with the first optical channel in the second opto-electronic equipment

INTERNATIONAL SEARCH REPORT

information on patent family members

International Application No

PCT/EP2004/052460

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 4994675	A	19-02-1991	NONE	
US 6470132	B1	22-10-2002	AU 7999501 A CN 1486547 A EP 1316163 A2 WO 0221730 A2 JP 2004508599 T	22-03-2002 31-03-2004 04-06-2003 14-03-2002 18-03-2004
DE 19809667	A	09-09-1999	DE 19809667 A1 WO 9945662 A1	09-09-1999 10-09-1999
US 2003087610	A1	08-05-2003	JP 2003143272 A CN 1417994 A GB 2381990 A	16-05-2003 14-05-2003 14-05-2003
US 4325146	A	13-04-1982	NONE	
EP 0772307	A	07-05-1997	FI 955200 A EP 0772307 A1 JP 3440188 B2 JP 9214583 A US 5914796 A	01-05-1997 07-05-1997 25-08-2003 15-08-1997 22-06-1999